Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

amount of evidence presented leaves no doubt as to the correctness of the conclusions. Aside from having solved one of the most obscure problems of plant pathology, the authors have shown that it has a more general bearing in showing that these plant galls, due to bacteria, present many analogies to animal tumors. The successful isolation of causal bacteria from the plant tumors, after many failures, leads one to hope that the work will stimulate renewed search for organisms in animal tumors.—H. HASSELBRING.

Coastal floras.—H. CHERMEZON[14] has recently made a contribution to the study of coastal floras. In the introduction he calls attention to the well known peculiarity of these floras, the interest they have excited in botanists since ancient times, and the theories advanced as to the relation between them and salt in the soil.

The main part of the work is divided into three sections. In part 1 is given a description of the structure of the leaf and stem of a large number of plants of the coast, chiefly of France, but also of some of the salt-desert regions of Tunis. In part 2 a study is made of the characters peculiar to plants of the coast. There are three categories of habitat: (1) the region of sands, including (*a*) beaches and (*b*) dunes; (2) region of rocks and cliffs, including (*a*) rocks and bowlders exposed to the spray and (*b*) the top of cliffs; (3) damp salty places including (*a*) muddy flats and salt marshes (the halophytic zone par excellence), and (*b*) damp prairies, not reached by the sea, which form a transition to the flora of the interior.

Part 3 is devoted to a discussion of the flora. It is divided into two parts: (1) marshes, rocks, and beaches; and (2) dunes and sands. The transition between the two is made by the plants of the beaches which have characters common to both. In the first group succulency and development of water-tissues are the striking features, while the second shows more often thickening of the cuticle, sinking of stomata, and abundance of hairs. As the stations of the first group are the most salty, while the dunes are not salty at all, the author distinguishes two sorts of floras, the halophilous and the xerophilous. The xerophilous flora reaches its maximum in the dunes, where the characters are such as are met with in other xerophilous floras; but it is less specialized than that of the desert or even the Mediterranean flora, since the dryness is less pronounced and less continuous. The halophilous flora occupies the beaches, the rocks and bowlders, and the salt marshes. The beach and the dunes are not distinct, plants passing from one to the other; but a great many sand-loving plants of the dunes are absent from the beach, which the author explains by the presence of salt, small in amount but sufficient to eliminate them. The rocks and bowlders in the vicinity of the sea, exposed to the spray, are occupied by a flora with special characters, less halophilous than those of the beach flora. In the salt marshes is found the most halophytic flora. Several plants have hygrophilous characters, as canals or lacunae.

---

[14] CHERMEZON, H., Recherches anatomiques sur les plantes littorales. Ann. Sci. Nat. Bot. **12**:117–313. *figs. 52.* 1910.

In conclusion, the coastal flora is composed of xerophilous and halophilous members, showing points of contact; plants of the xerophilous flora have moderately xerophilous characters, such as epidermal protections slightly developed; plants of the halophilous flora exhibit succulency of leaves and of stem and water-tissues; characters in common to the two are isolaterality of leaves and compact structure of the mesophyll.

The author objects to SCHIMPER's placing halophytes among xerophytes and says: "The assimilation results from confusion between the two different parts of the coastal flora; truly halophilous plants do not often show xerophilous characters; such characters at least in the marshes would be very difficult to explain in spite of the arguments of SCHIMPER; besides, several species of the salt marshes on the contrary have certain hygrophilous peculiarities. The fact that there are succulent plants outside the coast simply proves that succulency may be related to other factors of the soil besides salt, but its frequency in plants of salty earths shows that there exists a certain relation between succulency and salt. The nature of the relation is impossible of determination." Either argument, that succulency permits plants to resist the toxic action of salt, or that the appearance of succulent plants on the coast is due to lack of competition there, he thinks insufficient, and concludes that a flora as special as that of the salt marsh should be considered as halophilous in the proper sense of the word. The author admits that succulency may be due to other factors than salt in the soil, but does not make it clear why he objects to considering that "physiologically dry" soil and really dry soil may occasion the same structure. SCHIMPER's argument seems to us to stand. —A. M. STARR.

Inheritance of flower-form and color in Digitalis.—A familiar garden variety of *Digitalis* has the central axis terminated by a peloric flower. KEEBLE, PELLEW, and JONES[15] find that this form is a Mendelian recessive to the typical form, and that, as might be expected, the inheritance is the same whether the seeds are taken from the peloric flower or the normal zygomorphic flowers of the same plant. The flower-color is referred to three pairs of allelomorphs: *Mm*, a magenta factor; *Dd*, a darkener which changes the magenta to purple; and *Ww*, a dominant white factor which removes the effect of *M* except in the small spots which occur on the corollas of all *Digitalis*. When *M* is present these spots are red, and when absent they are yellow.

MISS SAUNDERS[16] has studied the inheritance of an interesting form of

---

[15] KEEBLE, F., PELLEW, MISS C., and JONES, W. N., The inheritance of peloria and flower-color in foxglove (*Digitalis purpurea*). New Phytologist 9:68–77. *fig. 1.* 1910.

[16] SAUNDERS, MISS E. R., On inheritance of a mutation in the common foxglove (*Digitalis purpurea*). New Phytologist 10:47–63. *pl. 1. figs. 12.* 1911.